

## **Role of a two-component ResD-ResE system in regulating the expression of guanyl-specific ribonuclease genes in Bacilli**

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### **Abstract**

The role of the two-component ResD-ResE signal transduction system in regulating the expression of guanyl-specific ribonuclease genes in bacilli has been studied. Proteins with homologies to the ResD and ResE regulatory proteins of *Bacillus subtilis* have been found in all sequenced genomes of *Bacillus*. It has been shown using the *B. subtilis* strains defective in genes of these proteins that the ResD-ResE signal transduction system positively regulates the expression of ribonuclease genes of *B. intermedius*, *B. pumilus*, and *B. thuringiensis* in cells of *B. subtilis*. The data obtained in this work speak for the fact that regulatory system similar to the two-component ResD-ResE signal transduction system of *B. subtilis* also functions in other representatives of the *Bacillus* genus. © 2008 Allerton Press, Inc.

<http://dx.doi.org/10.3103/S089141680803004X>

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